

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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|----------------|---|---|
| Applicant      | : | Francis X. Canning  |
| Appl. No.      | : | 10/619,796  |
| Filed          | : | July 15, 2003   |
| For            | : | SPARSE AND EFFICIENT<br>BLOCK FACTORIZATION FOR<br>INTERACTION DATA |
| Examiner       | : | Herng Der Day   |
| Group Art Unit | : | 2128  |

**AMENDMENTS AND RESPONSE TO OFFICE ACTION DATED MARCH 5, 2009**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

In response to the Office Action dated March 5, 2009, Applicant respectfully submits the following amendments and comments in connection with the above-captioned application.

**Amendments to the Claims** are reflected in the listing of claims which begins on page 2 of this paper.

**Remarks/Arguments** begin on page 8 of this paper.